

CLAIMS

What is claimed is:

[c01] A method, comprising:

subtracting a current value of a pointer from a maximum value of the pointer;
comparing to a desired value; and
asserting a stall when the desired value is achieved.

[c02] A method according to claim 1, further comprising initializing the desired value of the pointer.

[c03] A method according to claim 1, further comprising initializing the desired value of the pointer to an integer value.

[c04] A method according to claim 1, further comprising initializing the desired value of the pointer to zero.

[c05] A method, comprising:

advancing instructions along a pipeline, the pipeline having a minimum amount of open space;
subtracting the minimum amount of open space from a current amount of open space within the pipeline;
comparing to a desired value; and
asserting a stall when the desired value is achieved.

[c06] A method according to claim 5, further comprising initializing the desired value.

[c07] A method according to claim 5, further comprising initializing the desired value to an integer value.

[c08] A method according to claim 5, further comprising initializing the desired value to zero.

[c09] A method according to claim 5, wherein the step of asserting the stall comprises asserting an instruction stall.

[c10] A method according to claim 5, wherein the step of asserting the stall comprises asserting a register stall.

[c11] A method according to claim 5, wherein the step of comparing to the desired value comprises comparing to the desired value each clock cycle.

[c12] A method according to claim 5, further comprising increasing the current amount of open space as an instruction is retired.

[c13] A method according to claim 5, further comprising decreasing the current amount of open space for an incoming instruction.

[c14] A method, comprising:

advancing instructions along a staged pipeline;

establishing a single pointer to indicate the amount of open space within the pipeline;

and

asserting a stall condition when the single pointer indicates resources are limited.

[c15] A method according to claim 14, further comprising establishing a minimum number of open spaces within the pipeline.

[c16] A method according to claim 15, wherein the minimum number of open spaces corresponds to the number of instructions per stage.

[c17] A method according to claim 14, further comprising establishing a maximum amount of open space within the pipeline.

[c18] A method according to claim 14, further comprising comparing the value of the single pointer to a desired value.